

## REMARKS

The first paragraph of the Specification has been amended to update the status information of the applications to which benefit is claimed.

Claims 1-40 remain pending in this application, claim 40 being added by the present paper.

Claims 1-39 stand rejected under 35 U.S.C. § 103(a) as allegedly being unpatentable over the publication by Johansson et al cited by the Applicants in the Information Disclosure Statement filed August 15, 2003. Applicants respectfully traverse.

Implicit in the rejection set forth in the Office Action is a finding that the Johansson et al publication is prior art to the claims of the present application. The Johansson et al publication, however, is not prior art to the claims of the present application.

The earliest potential effective date of the Johansson et al publication as a reference under 35 U.S.C. § 102 is June of 1999, the date when subject matter from the publication was presented at the International Biohydrometallurgy Symposium in Madrid, Spain.<sup>1</sup> On the other hand, the effective filing date of the claims of the present application is December 14, 1998. Hence the Johansson et al publication is not prior art.

The claims of the present application are entitled to an effective filing date of December 14, 1998, because the instant application claims benefit of U.S. Patent Application Serial No. 09/212,579 (the '579 application), and the '579 application fully supports the instant claims.

The '579 application, which matured into U.S. Patent No. 6,110,253, fully supports original claims 1-39 because it teaches chalcopryrite, and chalcopryrite is classified as a hypogenic copper sulfide mineral by those skilled in the art. For example, in describing chalcopryrite, McGraw-Hill,

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<sup>1</sup> Applicants do not concede that the effective date of the Johansson et al publication as a reference is in fact June of 1999, because it was not published until sometime after the Madrid proceedings.

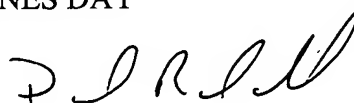
*Concise Encyclopedia of Science & Technology, Fourth Edition*, 361 (1998) (copy attached), states “[c]halcopyrite is the most widespread primary copper ore mineral.” Similarly, *Van Nostrand’s Scientific Encyclopedia, Fifth Edition*, 483 (1976) (copy attached), states: “Chalcopyrite is the most common copper bearing mineral known and it is the most important ore of copper. It is a primary mineral in many igneous rocks and from it a host of secondary copper minerals have been derived.” Thus both references define chalcopyrite as being a **primary** copper mineral. Further, in the context of discussing ore and mineral deposits, the McGraw-Hill reference states “[m]ineral deposits that are essentially as originally formed are called **primary or hypogene**,” McGraw-Hill, *Concise Encyclopedia of Science & Technology, Fourth Edition*, at 1364 (copy attached); thus the adjectives “primary” and “hypogenic” are synonymous terms in the art when describing minerals.

New claim 40, which is modeled after original claim 1 of the ‘579 application, uses the term “primary copper sulfide mineral” in place of the term chalcopyrite and hence is also supported by the disclosure of the ‘579 application.

In view of the foregoing, reconsideration and allowance of this application are earnestly solicited.

Respectfully submitted,

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